

AMENDED CLAIMS

After describing sufficiently my invention, I consider it as a novelty and therefore I claim as of my exclusive property, the content of following clauses:

5

1. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor characterized because this Reactor or Furnace is formed by hallow walls divided into two chambers through which the Heating Element (heated oil) flows from one to the other passing through the Connecting Pipes which are arranged in several layers therefore transmitting the heat to the raw materials (inorganic and organic waste) in a uniform manner, softening and agglutinating it and forcing the paste to follow various trajectories until it is expelled through the exit of the reactor.

10

15 2. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor or Furnace as described on Claim 1, which is characterized by the fact that both chambers forming a hollow wall are communicated by means of pipes or internal conducts arranged en diametrical form, this means, across the whole cavity of the reactor or furnace following the "communicating vessel principle"

20

3. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor or Furnace as described on Claim 1, characterized by the fact that the two Chambers that form the hollow wall of the Reactor or furnace have a greater enough cross sectional area, therefore forcing to the Heating Element (heated oil) which flows in a closed circuit, to always circulate trough the totality of the internal connecting pipes and therefore not only trough the hallow walls of the Reactors chamber, allowing by this, that the raw materials (inorganic and organic waste) which has not been in contact with the heated Reactors walls, get in contact in the central part of the Reactor with the heated connecting pipes arranged in several layers and in diametric form, therefore ensuring a uniform transference of the heat from the heating element

25

30

(heated oil) to the totality of the raw materials (inorganic and organic waste) present inside the Reactor.

4. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor or Furnace as described on Claim 1, characterized by disposition of the two chambers formed by the Reactor's hallow walls and the connecting pipes arranged in layers in diametric form which force the heating element (heated oil) to flow in uniform manner through the complete Reactor's body, ensuring a uniform heat transference from the heating element (heated oil) to the totality of the raw materials (inorganic and organic waste) present inside the Reactor.
5. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor or Furnace as described on Claim 1, characterized by the fact that the disposition of the connecting pipes which cross the Reactor Chamber is such that forces the raw materials to describe a trajectory in labyrinth form similar to a mixing action.
6. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses which comprises a Reactor or Furnace as described on Claim 1, characterized by the fact that the Reactor transforms the raw materials (organic and inorganic waste by applying heat, into a dough like paste, softening, agglutinating and homogenizing all the raw materials (organic and inorganic waste), which is then evacuated through the opening in the extreme of the Reactor.
7. A machine to recycle inorganic and organic waste to obtain a moldable paste for diverse uses, as described in the precedent claims 1 to 6, which is characterized by the fact that the moldable dough like paste here by obtained and evacuated through the opening in the extreme of the reactor, once cold becomes solid and possesses excellent mechanical properties.

8. Process to recycle inorganic and organic waste to obtain a moldable dough like paste to produce useful materials utilizing the machine described in Claim 1, characterized by the following stages:

First Stage: By means of the screw conveyor the inorganic and organic waste is introduced in the following proportions: 80% plastics of any type, form or quality and 20% sponge, rubber, synthetic fibers, glass, metallic burs, fiber glass, paints, gluing materials and metallic pins; this 20% may contain up to 50% of polystyrene foam articles, and also this 20% may contain up to 50% (10% of the whole raw material's mix) of organic waste:

Second stage: Mechanical, eolic, pneumatic or hydraulic force is applied to push the raw materials (inorganic and organic waste) into the Receiving chamber and finally to the inside of the Reactor:

Third stage: Heating of the raw material (inorganic and organic waste) by means of the Reactor's Heating Element (heated oil) which transfers its heat to the raw materials transforming this inorganic and organic waste into a soft and homogeneous moldable dough like paste, which once processed and still hot is evacuated through the opening in the most extreme part of the Reactor:

Fourth stage: The final products are obtained when the moldable dough like paste is ejected or evacuated through the opening in the extreme of the reactor and is allowed to fill open molds that once they are full, the paste on them is pressed to fill the entire cavity of the mold as well to eliminate the excess of plastic taking the advantage that the plastic continues hot, therefore achieving an excellent finished surface and a higher mechanical strength; the cooling of the pieces will vary accordingly with the size and thickness of the pieces being molded:

9. A moldable dough like paste for diverse uses, which is obtained according to the process described in Claim 8, characterized by being formed by 80% plastics of any type, form or quality, and 20% of rubber, sponge, synthetic fibers, glass, metallic burs, fiber glass, paints, gluing materials and metallic pins; this 20% may contain up to 50% of polystyrene foam articles (which is up to 10% of the whole waste mix), and can also contain up to 50% of organic waste (which is a 10% of the whole waste mix).

10. The products obtained from the moldable paste for diverse uses , according to Claim 9, which are characterized by having a high mechanical resistance making them useful as construction materials.

5 11. A machine to recycle inorganic and organic waste to obtain a moldable dough like paste for diverse uses which comprises: a chassis or supporting structure, a control panel, a hydraulic piston, a pushing plate, a feeding screw conveyor, a receiving chamber, a flanged union, a pump, a discharge opening, some connecting pipes, a sensor with thermometer, heating equipment, a sensor with
10 purge, a compensation tank to maintain the system at atmospheric pressure, a venting orifice with cap, some sensors, and a Reactor or furnace which is characterized by its advanced and novel disposition or arrangement of all its elements.

15

20

25

30